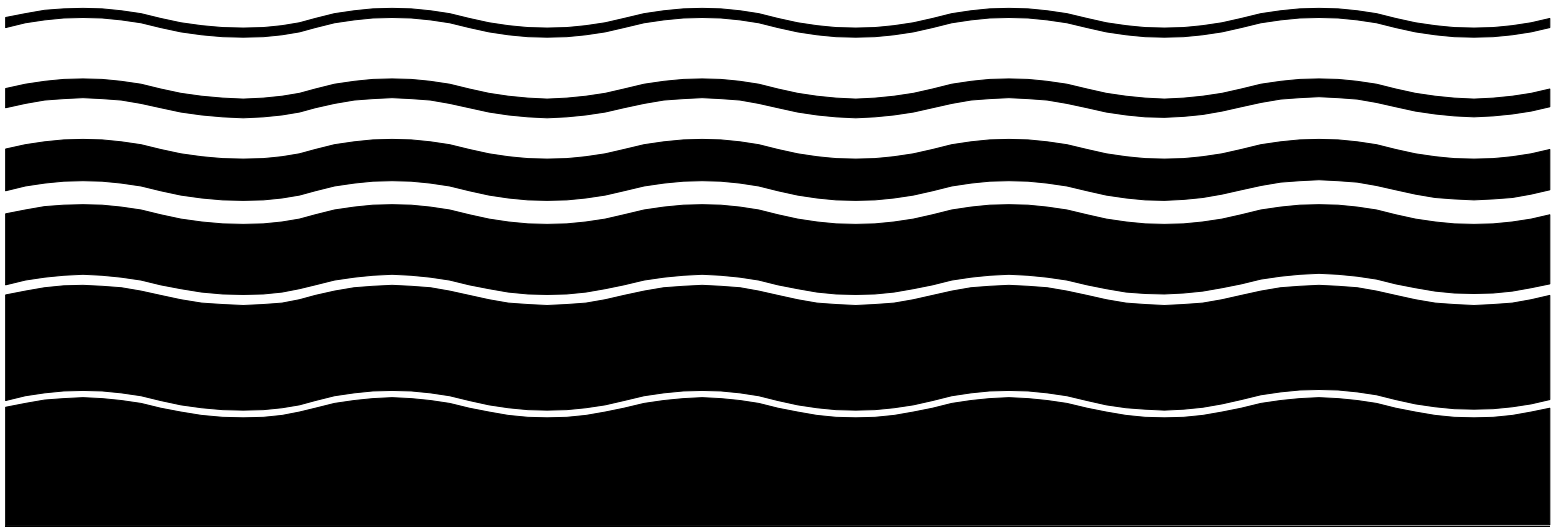


# **Development Document For The Proposed Effluent Limitations Guidelines and Standards For The Metal Products And Machinery Phase I Point Source Category**



**Development Document  
For  
The Proposed Effluent Limitations  
Guidelines and Standards  
For The  
Metal Products And Machinery Phase I  
Point Source Category**

**Carol M. Browner  
Administrator**

**Robert Perciasepe  
Assistant Administrator, Office of Water**

**Thomas P. O'Farrell  
Director, Engineering and Analysis Division**

**Elwood H. Forsht  
Chief, Chemicals and Metals Branch**

**William J. Cleary  
Project Officer**

**April 1995**

**U.S. Environmental Protection Agency  
Office of Water  
Washington, DC 20460**

# ACKNOWLEDGEMENTS

The Environmental Protection Agency appreciates the dedicated efforts, technical expertise, and many contributions to the MP&M Phase I proposal rulemaking effort by the Radian Corporation personnel in Herndon, Virginia under contract number 68-C4-0024.

The Agency acknowledges the plant managers, engineers, and other MP&M industry representatives whose cooperation and assistance in site visitations and information gathering activities greatly contributed to the completion of the technical studies and assessments.

A number of people within EPA made major contributions to this proposal rulemaking effort. Mr. William Cleary (Project Officer, Metals Branch, Engineering and Analysis Division) was instrumental in the management of the contractor efforts, coordination among many EPA offices, and resolution of many complex issues. His deft guidance, technical expertise, and tireless efforts were essential to the successful completion of this stage of the project. Jan Goodwin (Energy Branch, Engineering and Analysis Division) also made significant contributions to the technical efforts. Lynne Tudor and Helen Jacobs (Economic and Statistical Analysis Branch, Engineering and Analysis Division) were major contributors to the overall efforts through dedicated performance related to the economic analyses and the statistical analyses, respectively. Dedicated administrative support was provided by Elizabeth Smith of the Engineering and Analysis Division. Contributions were also made by Patrick Bastek, Annette Huber, Sabita Rajvanshi, and Lisa Nelson, all of whom were previously employed in the Engineering and Analysis Division.

Jocelyn Siegel (Pollution Prevention Division, Office of Prevention, Pesticides and Toxic Substances) evaluated the pollution prevention aspects of the category. Ed Gardetto (Exposure Assessment Branch, Standards and Applied Science Division) evaluated the environmental benefits of the proposal. Legal support was provided by Karen Clark, Carrie Wehling, and Susan Lepow of EPA's Office of General Council.

Additional contributions were made by the following members of the EPA MP&M workgroup: Burnell Vincent, Bill Painter, Max Diaz, Paul Shapiro, Bryan Holtrop, Judi Kahl, Paul Almodovar, Maria Malave, Nadine Steinberg, and John Sparks.

Finally, the MP&M proposal was developed with substantial input from the regional, state and local permitting communities. In particular, Keith Silva and Greg Arthur of EPA's Region IX office provided substantial input to the development of this proposal.